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**NEW METHOD TO VOCALIZE ANCIENT EGYPTIAN
BASED ON SPECIFIC OFFERING TEXTS OF A POETIC NATURE**

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YEREVAN STATE UNIVERSITY – ARMENIA

NEW METHOD TO VOCALIZE ANCIENT EGYPTIAN BASED ON SPECIFIC OFFERING TEXTS OF A POETIC NATURE¹

Christian de Vartavan²

'Speaking is harder than all other work'. Prince Ptahotep - Instruction to his son, 24 [362]. 6th dynasty.

Ever since Jean François Champollion discovered the principles of the hieroglyphic system in 1822, hence little less than two hundred years ago, the language of the pharaohs has remained un-vocalized as vowels are not apparent³. Various attempts to restore these vowels and generally the phonology of Ancient Egyptian have been made through linguistics, as recently conveniently overall summarized by Müller (2011)⁴; this with little results which are not speculative if not because unverifiable. The methodology presented here and developed by the author is of a totally different nature and one previously unseen. It not only allows vocalizing Ancient Egyptian through internal poetry analysis, using Coptic as verifying agent, but may also be used to verify vocalizations previously made through linguistic argumentations only.

Principle

Many scholars (Burkard, 1983; Fecht 1963, 1964, 1966; Foster, 1975; 1977, 1980; Vikentiev, 1935), including more recently Mathieu (1988, 1990, 1994, 1997, in preparation) to cite a few, have demonstrated that ancient Egyptians sometimes composed their literary texts according to some strict metrics⁵. The author, studying in 2009 the Daily Ritual (Vartavan, forthcoming), made the important discovery that beyond these metrics, ancient Egyptians composed their texts according to such elaborate structure as can for a start only be described as stupefying of complexity and rigor⁶. It then occurred to the author that some poetic texts could equally have been composed with such elaborate structure and that should such texts be found, some information could be gained as to which vowels existed within the words employed through the game of poetic sound plays and its deep analysis. Using the *TLA*⁷, the author then searched for texts which could present some apparent literary structure. After much perusing of the *TLA* corpus of texts, he first stumbled upon OMBOS I 110 143 the rigid structure of which seemed to him to be betrayed by the presence at the middle end of each first four lines by a “m”. ‘M’s indicating a rhythmical recitation or metrics of some kind. This structured text seemed adequate to experiment for the development of a methodology which could perhaps reveal the hidden vowels of the language. However, never did the author expect ancient Egyptians to have gone so far in structuring texts as shall now be demonstrated.

¹ The present study is primarily dedicated to Prof. Aram Simonyan, Rector of Yerevan State University, without whom AEC would not have been created and this advance could not have been made. It is also dedicated to Prof. Samvel Haroutiunyan, General Secretary of the Superior Council for Science, Prof. Dimitri Meeks, Institute of Egyptology, University of Montpellier (France), and Mr. Gagik Yeghiazaryan, Director, K-Partners (Yerevan, Armenia) who have respectively sustained the centre and the author with their unstinting help since its creation. Last but certainly not least the author also wishes to express his very deepest gratitude to Prof. Bernard Mathieu, of the same Egyptology Institute, for his fundamental support, encouragement and suggestions during the elaboration of the present study. Daniel Arpagaus (Basel Univ.), D. Meeks and B. Mathieu are also thanked for providing their transliterations of the texts presented here studied or providing invaluable linguistic remarks which have contributed to the solid improvement of the present study. In this respect note that the transliterations and conclusions presented in this study are not necessarily those of these scholars. Not least, the author's gratitude goes to Lady Arminée Arakelyan and Ms. Ashkhen Zakharyan, of our centre, for their constant support and for having suffered endless lunch or other time improvised lectures on each and any aspect of the present study.

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³ Mathieu, in a three pages PDF attachment commenting on the draft of the present study (thereafter referred as Mathieu, PDF 13-01-13) accompanying an email to the author of the same date, made the following fundamental statement for which the author is most grateful: *'It is true that, in principle, the hieroglyphic system does not indicate vowels. In reality, the situation is less clear cut. Many uniliteral signs (3, j, y, w in particular), in neo-Egyptian graphies notably, usually considered by Egyptologists as superfluous or faultives, constitute vocalic notations, often to note an accentuated vowel within a lexem'* (Page 1, translation of the author from French). [As we close this manuscript, a second five pages report is received on 14-02-14 by Prof. Mathieu, hence one year later almost day for day, with further suggestions]. The situation is indeed far from clear cut as a portion of the Ancient Egyptian vocabulary is reconstituted according to various linguistic methods by various scholars, but if some consensus exists between some scholars for some of these reconstructions the language is overall considered as not vocalised and no vocalisation method or general vocabulary of vocalized terms is available as the author writes these lines.

⁴ Please refer to this article and its extensive bibliography for previous approaches based on linguistic arguments.

⁵ For a general overview of wordplay in Ancient Egypt see E. Shirakawa's *Sound Metaphor: Functions of Wordplay in Ancient Egypt*. Ph.D. Thesis, University of Liverpool; 2008.

⁶ The text of the Daily Ritual is simultaneously chiasmic, anaphoric and rhymed; a fit of literary composition (see Vartavan, forthcoming).

⁷ *Thesaurus Linguae Aegyptiae* (<http://aaw.bbaw.de/tla/servlet/TlaLogin>). The virtual dictionary and Ancient Egyptian texts database of the Berlin-Brandenburg Academy of Sciences, Germany.

Ombos I 110 143

The temple of Kom Ombo was started at the beginning of the reign of Ptolemy VI Philometor (180-145 BC) and completed by other Ptolemaic rulers such as Ptolemy XIII (51-47 BC). Ombos I 110 143 lies on column numbered No. IX by de Morgan & al. (1894: 110), in the temple court. It is a small offering text placed (Fig. 1 & Fig. 2) in front of the legs of pharaoh who offers lotus flowers to Sobek, patronymic god of Kom Ombo. The fact that the text is composed of four initial lines, a quatrain in effect, plus one additional line, is not at all apparent until transliterated. Even less visible is the repeated division of each line by an “m”, unequivocally betraying some kind of metrics.

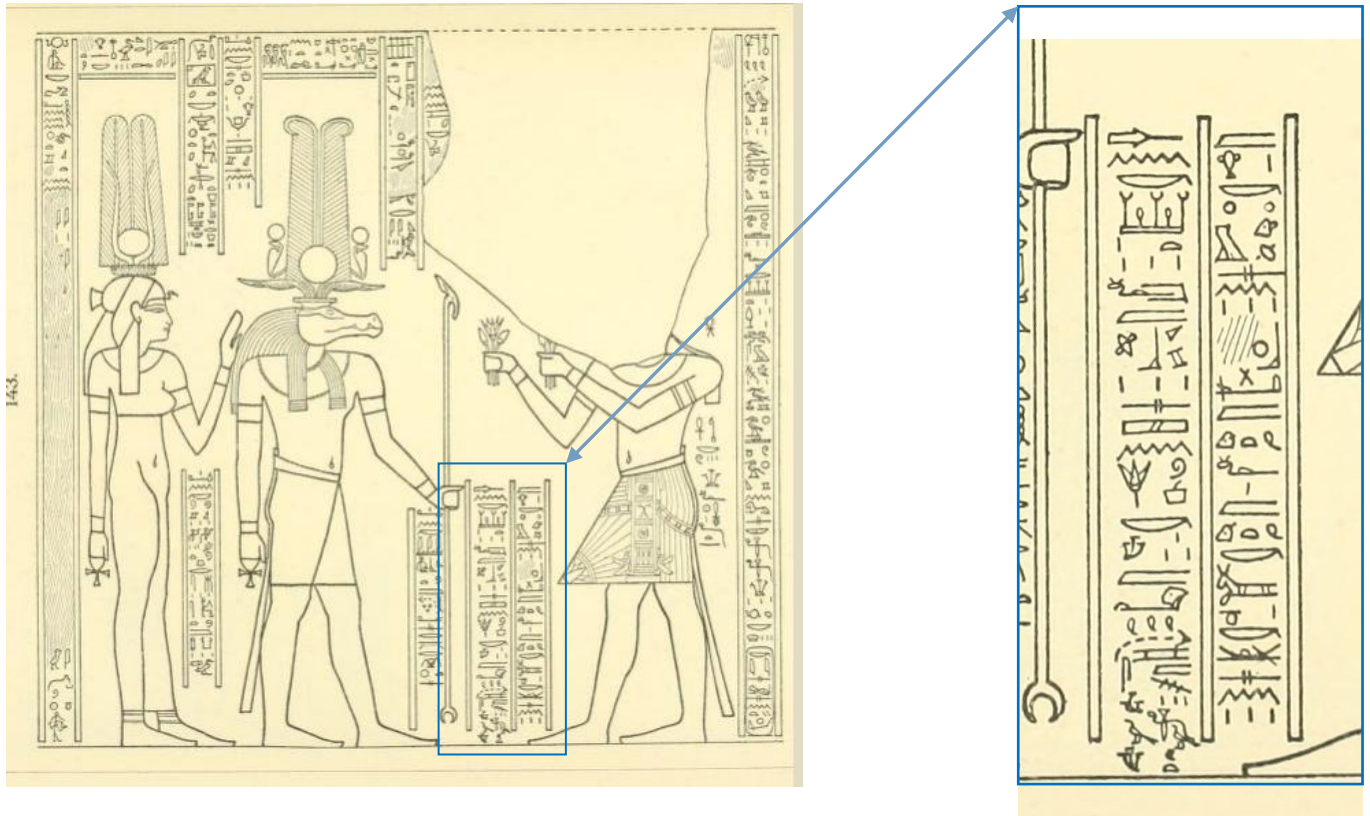
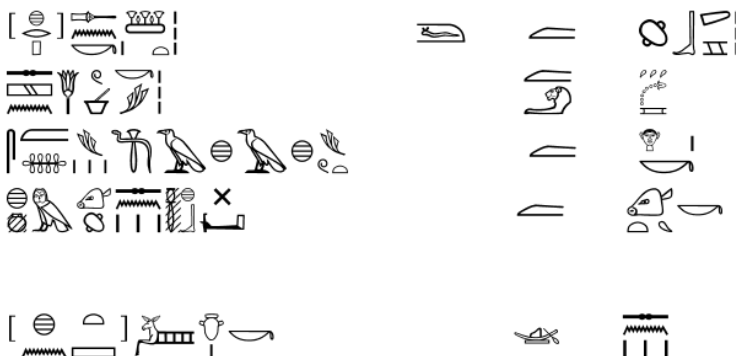


Fig. 1 (left). OMBOS I 110 143 is the small two columned text in front of pharaoh's legs (blue box). After Morgan & al., 1894. Fig. 2 (right). Enlargement of OMBOS I 110 143. After Morgan & al. 1894 ⁸.

Put clean with JShesh⁹, the text may thereafter on the base of the ‘m’ structural division deployed as stanzas¹⁰:



⁸ The text is also TLA DZA 28.787.630

⁹ JShesh is Serge Rosmorduc's remarkable free Ancient Egyptian texts editor: <http://jsesh.qenherkhopeshef.org/>

¹⁰ A stanza consists of a grouping of two or more lines, set off by a space, that usually has a set pattern of meter and rhyme.

Transliteration and translation of Ombos I 110 143

Ombos I 110 143 would then usually be transliterated and translated as follows:

mn n=k š3.w[.t] prj.w¹¹ m gbb.w
sšn[.w?], wbg.w m-h3t H^cpj¹²
sm.w w3d 3h3h¹³ m-hr=k
hnm=sn 3bh¹⁴ m šr.t¹⁵=k
hntš¹⁶ jb¹⁷=k jm¹⁸=sn

This translation overall agrees with that provided by the *TLA*¹.

'Take the plants coming from the fields!
The lotus/lotuses?¹⁹ greening in front of the Nile!
The green herbs growing in front²⁰ of you,
Their scent merging in your nose²¹!

'Nimm dir die Pflanzen die aus dem Acker kommen,
Lotos der blüht an dem Nil,
das grüne Kraut, das gedeiht vor dir,
ihr Duft zieht in (deine) Nase.

Your heart is made glad by them!

Mögest du [...?] an ihnen'

However the author proposes , abbreviated var. , *hrp* (*xrp*) "bring"²², instead of *mn* (take!), as the sign for the sekhem sceptre  (S 42) is clearly expressed in the relief and not  (T1)²³.

Hence the more correct transliteration:

hrp n=k š3.w[.t] prj[.w] m g3bb.w²⁴
sšn, wbk²⁵ [=wbg].w m-h3t H^cpj
sm.w w3d 3h3h m-hr =k
hnm=sn 3bh m šr.t=k
hntš jb=k jm=sn

This suggestion confirmed by the **ABBA** structure of the quatrain which this choice reveals:

h A
s..... B
s..... B
h..... A

Then follows one additional ending sentence also starting in A = *h*.

¹¹ *Prj* 'hervorgehen' Wb 1: 518 [bottom, No. 15?], Ptolemaic writing of  [On manuscript close, research indicates that only 'pr' was pronounced].

¹² Later Ptolemaic writing of 'Hapy' (Wb 3: 42 [11]).

¹³ *3h3h* "grünen; überschwemmt sein; gedeihen" (Wb 1: 18 [16-20]) and not *w3dw3d* as may perhaps be considered.

¹⁴ *3bh* Wb 1: 8 [8-20].

¹⁵ The author had originally transliterated *fnđ*, not noticing the end sign, but Mathieu correctly suggested *šr.t*. 'nose, nostril' (Wb 4: 523 [1]-524[1]).

¹⁶ *hntš* (F97) to be glad, to make glad' during the Ptolemaic period (see Wb 3: 311 [11] - 312 [5]).

¹⁷ A similar inscription from Edfu temple (*TLA* DZA 20.498.050) starts with *hntš jb=sn* but writes '*jb*' fully, i.e. *j* + *b* + determinative of heart.

¹⁸ *jm* 'by, by means of, through' (Wb 2: 1 [11-12]), replaced in Ptolemaic times by the boat sign  (P1).

¹⁹ No plural is indicated after *sšn* but because of the following *wbg.w* then it is likely that a qualitative plural *w* was meant, as also suggested by Mathieu.

²⁰ Literally "in the sight of" or "in the view of" (Wb 3: 128).

²¹ Mathieu (email, 13-01-13) proposed 'narine' hence 'nostril' instead of nose.

²² *hrp* 'herbeibringen; darbringen' Wb 3: 326 [8-]. Many inscription, as available in the *TLA*, start with this word, either with *hr* clearly expressed or with the sekhem sceptre (S42) as conventional abbreviation.

²³ Note that the *TLA* now redirects '*mn*' 'take' (Wb 2, 60.1-4) to '*mj*' 'take' (Wb 2: 36 [1]).

²⁴ *gbb* 'auf dem Rücken, der Felder' (Wb 5: 164 [12 - bottom right]), composed of  Aa2 'g3' as accentuation of the usually invisible vowel 'a' as otherwise the word ordinarily uses  G38 'gb' (see incidentally Mathieu's remark in footnote 3 about accentuated vowels). The qualitative 'w' of *gbb.w* should not be pronounced but the analysis below seems to show that it was; the matter will require further investigation.

²⁵ Wb 1: 296 [18]. '*wbg*' or '*wbk*'. The variant with 'k', which is clearly indicated in the text, echoes better the '*n=k*' of the previous line.

As stated above the other obvious structuring of the quatrain is revealed by the systematic repetition of the “m” sign (— Aa13) meaning alternatively “from” or “in front”; repetition revealing an **AAAA** vertical structure. Whereas the fifth sentence also expresses the “m” assonance but with another sign (𐩨 P1). Hence each five stanzas of the transliteration may be split into two parts as follows:

<i>hrp</i> <i>n=k š3.w[.t]</i>	<i>prj.w</i>	<i>m</i> <i>g3bb.w</i>
<i>sšn, wbk.w</i>		<i>m-h3t H°pj</i>
<i>sm.w w3d 3h3h</i>		<i>m-hr=k</i>
<i>hnm=sn 3bh</i>		<i>m šr.t=k</i>
<i>hntš jb=k</i>		<i>jm=sn</i>

Mathieu, in his personal transliteration of the text sent to the author²⁶ also read $\uparrow$ (S 42) as *hrp* (*xrp*). Both Mathieu²⁷ and Arpagaus²⁸ however suggested that in this case *hrp* [=j] (*I offer*) should be read, the invisible 't', a prospective with unwritten suffix, being replaced by the image of the king, suggestion to which the author fully agrees.

Hence the again improved and final transliteration:

<i>hrp</i> [=j] <i>n=k š3.w[.t]</i>	<i>prj.w</i>	<i>m</i> <i>g3bb.w</i>
<i>sšn, wbk.w</i>		<i>m-h3t H°pj</i>
<i>sm.w w3d 3h3h</i>		<i>m-hr=k</i>
<i>hnm=sn 3bh</i>		<i>m šr[.t²⁹]=k</i>
<i>hntš jb=k</i>		<i>jm=sn</i>

To better analyse the text the author had the intuitive idea – perhaps born out of his life long poetry writing – to frame it into a standard grid, systematically alternating consonants (C) with vowels/semi-vowels (V); starting with consonants as in the transliteration of the presently studied text:

C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V
C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V
C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V
C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V

C[onsonant]-V[owel] grid

²⁶ Mathieu, PDF 13-01-13: 2 (see next footnote 3).

²⁷ 'Je pense qu'il faut lire *hrp* (=j) (prospectif, avec suffixe non écrit, ou plutôt « dessiné » avec la représentation du roi)' (Mathieu, PDF 13-01-13 : 2).

²⁸ Arpagaus, email to the author dated 03-12-2012: 'I am afraid that I would still opt for to be read as the imperative "mn", "take!" (Wb II, 60) - if it were to be read *hrp*, it surely can't be an imperative (as it is the king who is speaking these words to the god, and the king as well, who is presenting the lotus to the god - see the plate). Then you'd have to translate: *hrp*<=> *n=k nhb...*, "<I> bring to you the lotus..." '.

²⁹ The feminine t of *sr.t* was most likely silent as for many such feminine words and as indirectly confirmed by its Coptic descendant **ⲩⲁ** where it is absent. Other such feminine endings are not inserted for the same reason in the grid.

Insertion of available consonants and semi-vowels in predefined C-V grid

The available consonants and semi-vowels of Ombos I 110 143 may then be inserted one after the other in each column, line by line, giving the following distribution of phonemes (the standard hieroglyphics' computer Coding Manual³⁰ is thereafter used to make the sounds more apparent). Semi-vowels A, a, j/y present are put in blue to make them more apparent:

C	V	C	V	C	V	C	V	C	V	C		C	V	C	V	C	V	C	V	C
x		rp	y	n		k		S	A	w	prj.w	m		g	A	b		b		w
s		S		n		w		b		k		m		H	A	t		H	a	pj
										[.w]										
s		m		w	A	D	A	x	A	x		m		H		r		k		
		[.w]																		
x		n		m		sn	A	b		x		m		S		r		k		
				[.w]																
x		n		t		S	j	b		k	j	m		s		n				

The author admits condensing *rp* (first line, third column), *pj* (second line, last column), *sn* (fourth line, seventh) in a single cell. This is based on the suspected compositional bi-syllabic rhythm used by the scribe. The isolated verb *prj* (first line, twelfth column) in placed a single column of the grid to gain space, it should otherwise spread over at least five more columns.

First observations

The above readjustments reveal each four lines of the first part of the quatrain to be of the same length and the second part of the text, i.e. the part of the stanzas after the separating 'm's of a shorter length; a figure of Egyptian metrics already demonstrated elsewhere³¹.

C	V	C	V	C	V	C	V	C	V	C		C	V	C	V	C	V	C	V	C
x		rp	y	n		k		S	A	w	prj.w	m		g	A	b		b		w
s		S		n		w		b		k		m		H	A	t		H	a	pj
										[.w]										
s		m		w	A	D	A	x	A	x		m		H		r		k		
		[.w]																		
x		n		m		sn	A	b		x		m		S		r		k		
				[.w]																
x		n		t		S	j	b		k	j	m		s		n				

What is more important, the available semi-vowels (in yellow boxes) all appear in the V columns where vowels or semi-vowels are predicted to fall, and in two cases in the same vertical vowel column (A + A in column 8 & 10). **The latter suggesting that during the composition, vowels and semi-vowels were treated as same, except the semi-vowel 'w' which interestingly but perhaps not unsurprisingly was treated as consonant.** A very important observation as it may then be theorized that semi-vowels of a similar nature may be found in the same column.

³⁰ Currently <http://www.catchpenny.org/codage/>

³¹ See for example Mathieu, 1990: 133-137

Hence in the V columns (yellow boxes) where **A** [= ʒ] or **a** [= ʔ] exist, a true invisible vowel type “a” theorized (= [a]) may be systematically inserted. Giving the following results:

C	V	C	V	C	V	C	V	C	V	C		C	V	C	V	C	V	C	V	C
x		rp	y	n	[a]	k	[a]	S	A	w	prj.w	m		g	A	b		b	[a]	w
s		S		n	[a]	w	[a]	b	[a]	k		m		H	A	t		H	a	pj
s		m[w]		w	A	D	A	x	A	x		m		H	[a]	r		k		
x		n		m	[a]	sn	A	b	[a]	x		m		S	[a]	r		k		
x		n		t	[a]	S	j	b	[a]	k	j	m		s	[a]	n				

At that point Coptic may be used as an external verification system to see if an equivalence may be established between any theorized vowel and that found at the same place in the equivalent word in this language, Coptic being the descendant language of the various preceding forms of Ancient Egyptian³². After research the author could found in Crum's (1939) Coptic dictionary, or other sources, the descendants of several Ancient Egyptian words found in the grid.

N	α ³³			
OY	α	T ³⁴		
K	α	ξ ³⁵		
ℓ	α	T	ℓ	H ³⁶
ℓ	α ³⁷			
W	α ³⁸			

These Coptic words are then added in a extension of the grid exactly below their Ancient Egyptian counterparts (above)³⁹.

C	V	C	V	C	V	C	V	C	V	C		C	V	C	V	C	V	C	V	C
x		rp	y	n	[a]	k	[a]	S	A	w	prj.w	m		g	A	b		b	[a]	w
s		S		n	[a]	w	[a]	b	[a]	k		m		H	A	t		H	a	pj
s		m[w]		w	A	D	A	x	A	x		m		H	[a]	r		k		
x		n		m	[a]	sn	A	b	[a]	x		m		S	[a]	r		k		
x		n		t	[a]	S	j	b	[a]	k	j	m		s	[a]	n				
				N	α									κ	α	Ϸ				
														Ϸ	α	τ	Ϸ	Η		
				ΟΥ	α	τ								Ϸ	α					
														Ϸ	α					

³² As this study is also intended to non Egyptologists, the author allows himself such base explanations.

³³ The link between “n” and **να** is already established in the *Wörterbuch des Aegyptischen Sprache* (hereafter Wb) 2: 193. The dative (Theban dialect) is found in such expression as **ⲥⲏⲁⲓ** = **ⲥⲏⲁⲓ** 'I give [to] him'; or **ⲁⲓ-ⲏⲁⲓ** 'I gave [it] to him' (see Vycichl: 135).

³⁴ The link between “wAD” and **ΟΥⲁⲧ** is already established in Wb 1: 264.

³⁵ Crum, 131a.

³⁶ **Ϸⲁⲧⲉⲏ** ”in front of p” is not found in Crum, save an omission, but in <http://www.coptic.org/language/CopticEnglish.html>.

³⁷ Ha can mean “in respect of”, “at”, etc. (<http://www.coptic.org/language/CopticEnglish.html>). It is not certain that this is the equivalent word with Hr.

³⁸ The link between Sr.t and **Ϸα** has already been established in Wb: 4: 523.

³⁹ Of course the Coptic phraseology and/or grammatics are not respected. Words are just inserted where their ancient Egyptian counterparts exist.

The vowel correspondences are then seen to be systematically the same for the words which the author could find, i.e. those ancient Egyptian words which have survived in the Coptic vocabulary (see the established correspondence in the footnotes for each word). The vowel equivalences in coloured boxes are linked by double arrows.

C	V	C	V	C	V	C	V	C	V	C		C	V	C	V	C	V	C		
x		rp	y	n	[a]	k	[a]	S	A	w	prj.w	m		g	A	b		b	[a]	w
s		S		n	[a]	w	[a]	b	[a]	k		m		H	A	t		H	a	pj
s		m[.w]		w	A	D	A	x	A	x		m		H	[a]	r		k		
x		n		m	[a]	sn	A	b	[a]	x		m		S	[a]	r		k		
x		n		t	[a]	S	j	b	[a]	k	j	m		s	[a]	n				
				N	λ									κ	λ	ξ				
														ξ	λ	τ	ξ	h		
				oy	λ	T								ξ	λ					
														ω	λ					

What is interesting is to see that some of the purely ‘theorized’ vowels – here ‘[a]’s encircled in green boxes – are found to be the same for two of the Coptic words found **ξα** for H[a]r ‘in front’ and **ωλ** for S[a]r.t ‘nose/nostri!’. Demonstrating the validity of the system and/or the compositional principles used by the scribe, i.e. same vowels in same columns. From now on Ancient Egyptian vowels found at the same place as in Coptic will be **put in green** within the grid, indicating that the vowel equivalence between Ancient Egyptian and Coptic has been established.

Of course ancient Egyptians did not only used “a” as vowel, but most likely at least some kind of “o”, short or long, “i” as well as “e”⁴⁰. Luckily it just happens that the first word of the first line *hrp* “bring”, has survived in Coptic as **ωωρπ**⁴¹, with the well known linguistic shift of x/h [=kh] in S/s [= sh/ω]. The word has in Coptic a long ‘o’ (ω) hence it may be again theorised, as already practised with the ‘a’ type of vowel, that an invisible “[o]” could also have existed in the ancestral Ancient Egyptian word *hrp*/xrp. Hence the following [o] addition, encircled in a green box, to the grid:

C	V	C	V	C	V	C	V	C	V	C		C	V	C	V	C	V	C	V	C
x	[o]	rp	y	n	[a]	k	[a]	S	A	w	prj.w	m		g	A	b		b	[a]	w
s		S		n	[a]	w	[a]	b	[a]	k		m		H	A	t		H	a	pj
s		m[.w]		w	A	D	A	x	A	x		m		H	[a]	r		k		
x		n		m	[a]	sn	A	b	[a]	x		m		S	[a]	r		k		
x		n		t	[a]	S	i	b	[a]	k	j	m		s	[a]	n				

⁴⁰ Since this statement was made in 2012 the author has progressed considerably on the accentuations of vowels (see the very end of article statement).

⁴¹ The link between xrp and **ωωρπ** has already been established in the TLA (DZA 28.071.900) and Wb 3: 326.

If we follow the system's logic we can now theorize that the invisible vowels in the same column should also be [o] type of vowels. Hence, in the extended green box:

C	V	C	V	C	V	C	V	C	V	C		C	V	C	V	C	V	C	V	C
x	[o]	rp	y	n	[a]	k	[a]	S	A	w	prj.w	m	g	A	b		b	[a]	w	
s	[o]	S		n	[a]	w	[a]	b	[a]	k		m	H	A	t		H	a	pj	
s	[o]	m[w]		w	A	D	A	x	A	x		m	H	[a]	r		k			
x	[o]	n		m	[a]	sn	A	b	[a]	x		m	S	[a]	r		k			
x	[o]	n		t	[a]	S	j	b	[a]	k	j	m	s	[a]	n					

There we are again fortunate as the first word of the second line is *sšn* (*sšn*) i.e. “lotus”. This word has also survived in Coptic as **ⲥⲱⲛ** “shoshen”⁴². Like for **ⲥⲱⲣⲡ** a long “o” (ⲱ) is to be found between the first consonants, fitting the theorization that “o” type of vowels are filling the first vowel column.

By further luck, the next start words *sm.w* (line 3) and *hnm* (line 4) have also survived in Coptic as **ⲥⲙ**⁴³ and **ⲥⲙⲁⲙ**⁴⁴, with again like for *hrl/ⲥⲱⲣⲡ* the glide kh/sh mentioned above. That **ⲥⲙ** has an “i” instead of an “o” is not so much a problem as in Coptic vowels can be exchanged depending on the dialect, and it would not be surprising to discover one day **ⲥⲙ** as a possible alternative – but for the time being the word is useless for our purpose. What is satisfying it to see that a third long “o” (ⲱ) appears once again in **ⲥⲙⲁⲙ** between the initial consonants, making it unlikely to be coincidental. The grid may be hence updates as such and the new correspondences made visible:

C	V	C	V	C	V	C	V	C	V	C		C	V	C	V	C	V	C	V	C
x	[o]	rp	y	n	[a]	k	[a]	S	A	w	prj.w	m	g	A	b		b	[a]	w	
s	[o]	S		n	[a]	w	[a]	b	[a]	k		m	H	A	t		H	a	pj	
s	[o]	m[w]		w	A	D	A	x	A	x		m	H	[a]	r		k			
x	[o]	n		m	[a]	sn	A	b	[a]	x		m	S	[a]	r		k			
x	[o]	n		t	[a]	S	j	b	[a]	k	j	m	s	[a]	n					
ⲥ	ⲱ	ⲣⲡ		ⲛ	ⲁ							ⲙ	ⲕ	ⲁ	ⲉ					
ⲥ	ⲱ	ⲥ	ⲉ	ⲛ								ⲙ	ⲉ	ⲁ	ⲧ	ⲉ	ⲙ			
ⲥ	ⲱ	ⲙ		ⲟⲓ	ⲁ	ⲧ						ⲙ	ⲉ	ⲁ						
ⲥ	ⲱ	ⲁ	ⲉ	ⲙ		ⲧ						ⲙ	ⲥ	ⲁ						

⁴² The link between *sšn* and **ⲥⲱⲛ** has already been established in Wb 3: 485.

⁴³ The link between *sm.w* and **ⲥⲙ** has already been established in TLA DZA 29.182.140.

⁴⁴ The link between *xnm* and **ⲥⲙⲁⲙ** has already been established in Wb 3: 292.

Now the double presence of “**ⲉ**” “**ⲓ**” in column 4 (in yellow box) allows us to further theorize that some an ‘e’ type of vowel fills that vowel column. Hence this new grid:

C	V	C	V	C	V	C	V	C	V	C		C	V	C	V	C	V	C	V	C
x	o	rp	ely	n	a	k	a	S	A	w	prj.w	m		g	A	b		b	a	w
s	o	S	e	n	a	w	a	b	a	k		m		H	A	t		H	a	pj
s	o	m[.w]	e	w	A	D	A	x	A	x		m		H	A	r		k		
x	o	n	e	m	a	sn	A	b	a	x		m		S	A	r		k		
x	o	n	e	t	a	S	i	b	a	k	j	m		s	a	n				
w	w	pp		N	a							M		K	a	z				
w	w	w	e	N								M		z	a	T	z	H		
C	I	M		O	a	T						M		z	a					
				Y																
w	w	λ	e	M		T						M		w	a					
						N														

For ‘e’ type of vowels, matters are more complex as we may expect in some places silent or unpronounced ‘e’s, such as schwas, which as in French poetry although invisible may have been counted. Hence logically after the verb i.e. *hrp/xrp* (1st line, 1st word) a silent “e” (hereafter expressed as [e]) type of vowel is expected, just as another silent [e] is expected to separate in line 3 the word *s[o]m/s[o]m*. Yet as per the previously discussed transliteration of the text a ‘j’ for ‘T’ appears as ‘*hrp [j] n=k*’ (*I take*) is read. The author has presently not definite solution for this resituating and will consider ‘*ey*’⁴⁵. Furthermore a ‘e’ is added for *xnm[m]* = ‘*Khon[e]ma*’ as suggested by its Coptic descendant *ⲱⲱⲗⲙ*.

⁴⁵ The question of how ancient Egyptian ‘j’ (I) was pronounced has been at the centre of the author’s preoccupations for quite some time, perhaps betraying his own ignorance in the matter as he is not aware of any study dealing with the subject. Was it pronounced as ‘[j]e’ hence ‘Ye,’ or as ‘[e]j’, hence ‘Ey’ or ‘T’ in English which in fact is phonetically pronounced /aɪ/[aɪ]? The author has long suspected that it could be either and that after a verb ‘ey/ei’ or ‘ay/ai’, with an inserted invisible ‘e/a’ vowel could possibly be the case. As the scribe here clearly treats as equal beat the invisible vowels and the written one, it seems that *hrp [[e]j] n=k* was pronounced something like ‘*kehorp-ey nak*’ - if not perhaps because ‘*kehorp-ye nak*’ would be more difficult to pronounce from a pronunciation point of view as forcing a stress on the second vowel, i.e. ‘e’. This being a mere suggestion necessitating the examination of ‘j’ in other texts according to the same method here presented. [End of manuscript note: the elucidation of this problem has also progressed but needs separate demonstration].

Finalizing the resituating of invisible vowels

Remains now only a single column for which the base vowel has not been theorized. In fact Coptic again provides a clue since *HAt* “in front” (line 2) has in Coptic a weak **h** “e” at its end = **ⲉⲁⲧⲉⲛ**. We may hence theorize that a “e” type of vowel fill the vowel column, hence finalizing the theorizing of the text’s invisible vowels.

C	V	C	V	C	V	C	V	C	V	C		C	V	C	V	C	V	C	V	C
x	[o]	rp	[e]y	n	[a]	k	[a]	S	A	w	prj.w	m	?	g	A	b	[e]	b	[a]	w
s	[o]	S	[e]	n	[a]	w	[a]	b	[a]	k		m	?	H	A	t	[e]	H	a	pj
s	[o]	m	[e]	w	A	D	A	x	A	x		m	?	H	A	r	[e]	k		
x	[o]	n	[e]	m	[a]	sn	A	b	[a]	x		m	è	S	A	r	[e]	k		
x	[o]	n	[e]	t	[a]	S	j	b	[a]	k	j	m	?	s	[a]	n				
ⲱ	ⲱ	ⲡ		Ⲛ	ⲁ							ⲙ		ⲕ	ⲁ	ⲉ				
ⲱ	ⲱ	ⲱ	ⲉ	Ⲛ								ⲙ		ⲉ	ⲁ	ⲧ	ⲉ	ⲛ		
ⲥ	ⲓ	ⲙ		ⲟϥ	ⲁ	ⲧ						ⲙ		ⲉ	ⲁ					
ⲱ	ⲱ	ⲁ	ⲉ	ⲙ		ⲧ						ⲙ	ⲉ	ⲱ	ⲁ					
						Ⲛ														

Finally, a vowel *e* may have been pronounced before or after each ‘m’. The author upon finishing the second revised version manuscript did not know of any element allowing to confirm this suggestion; hence at this stage an interrogation point was placed in the last empty vowel column. However a few months later he discovered the Coptic term **ⲙⲛⲛⲥⲁ** var. **ⲙⲉⲛⲉⲛⲥⲁ** **ⲙⲛⲛⲥⲱ** **ⲙⲉⲛⲉⲛⲥⲱ** ‘after’ which literally means ‘in [the] back’ (prep.) from Ancient Egyptian equivalent *m s3*⁴⁶. The alternative Coptic writings indicating the position of the stress by showing the otherwise invisible vowel **ⲉ** [è]; i.e not ‘[è]m’ but ‘m[è]’. Hence at least the **m** of **m** *šr*[.t]=*k* ‘in your nose’ (line 4) a is re-vocalized as ‘m[è]’.

Moreover, the plural *.w* of s[o]m[è].[w] (third stanza of quatrain) is removed as this is most likely a plural qualitative and as an identical consonant ‘w’ starts the next word *w3d*, it is more than likely it was not pronounced; as for similar qualitative *w* elsewhere.

⁴⁶ Wb IV 10,4-11,6.

Identifying parallelisms and play words in Ombos I 110 143

Major structural devices are indicated in red for the first part and in green for the second.

C	V	C	V	C	V	C	V	C	V	C		C	V	C	V	C	V	C	V	C
x	[o]	rp	[e]y	n	[a]	k	[a]	S	A	w	pr.w	m		g	A	b	[e]	b	[a]	w
s	[o]	S	[e]	n	[a]	w	[a]	b	[a]	k		m		H	A	t	[e]	H	a	pj
s	[o]	m	[e]	w	A	D	A	x	A	x		m		H	[a]	r	[e]	k		
x	[o]	n	[e]	m	[a]	sn	A	b	[a]	x		m		S	[a]	r	[e]	k		
x	[o]	n	[e]	t	[a]	S	j	b	[a]	k		m		s	[a]	n				

No. 1 – xssx + x
= **ABBA + A**
chiasmic structure to start first part of poem

No. 2 – First major playword between the first words of each five line, either between the first two or the three phonemes:

khorp...
soshena...
some[w]...
khonema...
khontash...

No. 3 – Second major playword between the last words of each five line, alternating in particular the phonemes A, b, k and x; and for four words ending almost similarly in **kh** or **k**, and for three in **bakh/bak**:

...ashAw
...wabak
...Axakh
...Abakh
...ye**ba=k**

No. 4 – **kxxk** (from 4th line to 5th)
= **ABBA**
chiasmic structure to end first part of poem.

No. 5 – **mmmm**
+ **m** = **AAAA+**
A = parallel division between first stanza and second stanza of each sentence of the poem.

m
m
m
m
m

No. 6 – **HHSs**
= **AABB** structure to start first part of second part of poem (Sh and S were probably treated as equivalent from the scribe).

No. 7 – Global playword between words of the second stanza of the end second part of the text:

gAbebaw.
Hat Hapey.
Hare=**k**.
Share=**k**.
san.

Proposed vocalisation of OMBOS I 110 143

The experimental vocalization of the text is proposed as follows, taking into consideration that vowels may have been pronounced in a shorter or longer way, and that it is not known whether the “m” introducing the second part of each stanza had a silent *e* before or a vowel after. Hence the near entire but not complete Latinized vocalization (the S at the start of line 2 and 3 stand here for a capitalized 's' and not 'Sh' as in their computerized coding, the original 𐤑/A and 𐤓/a are kept to indicate the original aleph and ‘ain types of “a”, whereas the *h*/H also to indicate an aspirated “h”):

Kh[o]rp [=e?]y na=k [a]shAw	<i>p[ei?]rj.[a?]w</i> ⁴⁷	m[e?] gAb[e]b[a]w
S[o]sh[e]n[a] w[a]b[a]k,		m[e?] HAt[e] Hapj
S[o]m[e] wAdj AkhAkh		m[e?]-H[a]r[e]=k
Kh[o]n[e]m[a]=sæn Abakh		m[è]-sh[a]r[e]=k

The poetic sound correspondences becoming so obvious that they hardly need be discussed, such as “ashAw/wabak/Akhakh/Abakh” or “harenak/sharetak”. The quatrain seems built on nine feet.

The vocalisation of the fifth ending line is uncertain at this, but may have been in the region of:

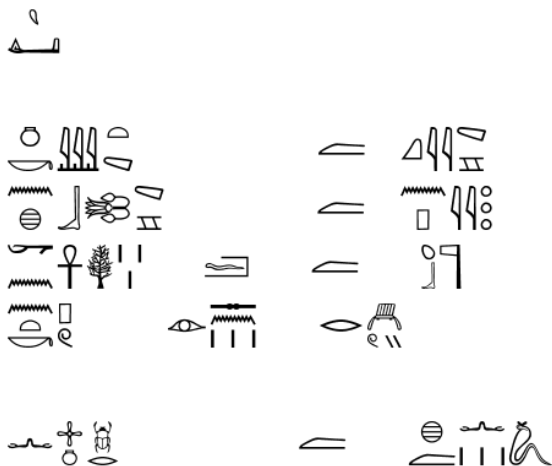
Kh[o]nt[a]sh _y [e]b[a]k	<i>j[e?]m[a]=s[a]n</i>
------------------------------------	------------------------

⁴⁷ *Prj.w* remains unvocalised, as isolated in the text. It may have been *p[i?]rj.[a?]w* or something the like if we refer to Coptic 'ⲡⲉⲣⲉ' (Wb 1: 518 - Bottom page) or *p[o?]rj.[a]w* if we refer to Dendara IX, 171, 12-172 below where the verb also appears, this time unisolated; mere suggestions necessitating confirmation.

Application of the method to two other similar offering texts: OMBOS I 84 100 & Dendara IX, 171, 12-172, 8

OMBOS I 84 100 (Phot. 32-33)⁴⁸

A text seemingly structured like the preceding one, i.e. OMBOS I 110 143 but far more difficult to organize.



Transliteration

rdj=f

n=k sh.t

nhb

h[.t]- n-^cnh[.w] prj(.w)

ntk pw jrj

nn wn hpr[.t]

m k3j[.t]

m npr

m G3bb

sn r-3w⁴⁹

m hm=k

Translation

He gives:

To you: The field with the high lying land

The fresh-field with corn

and cereals which comes forth from Geb (=the earth)

For you are the one who has created them all

There is nothing that exists (=not/none existing) without you knowing [it].

Note how the first and last line start with datives ‘To you’/‘For you’, whereas the middle lines are objects to be given ‘fresh fields’ ‘corn’ / ‘cereals’ – a voluntary structuring of the text which like for OMBOS I 110 143 ends with a fifth separate concluding line.

⁴⁸ Source: TLA DZA 25.239.410.

⁴⁹ The sign for Aw is in fact F40B  which as this study is completed is in the list of the few signs not yet available for JSesh (Rosmorduc, email dated 23-09-13).

Grid analysis [vowels confirmed by Coptic are greened]

C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C
r	?	D	?	j	?	f																
n	[a]	k	[e]	s	[o]	x	[e]							m	q	A	j	[a]	t			
n	[a]	x	[e]	b	[o]									m	n	[a]	p	[a]	r			
n ⁵⁰	an ⁵¹	x	[e]	w	[o]	p	[e]	r	j					m	G	[a]	b	[a]	b			
n	[a]	t	[e]	k	[o]	p	[e]	w	j	r	j			s	n	[a]	r	A	w			
n	[a]	n	[e]	w	[o]	n	[e]	x	[e]	p	[e]	r		m	x	[a]	m	[a]	k			
N	λ	K		C	ϣ	ϣ	ε ⁵²							M	K	λ	I	ε ⁵³				
C	λ	P	-	π	ο	τ ⁵⁴									N	α	φ	-	π ⁵⁵			
						π	ει	p	ε ⁵⁶													
										ι	p	ι ⁵⁷										
						N	ε ⁵⁸	ϣ	ω	π	ε ⁵⁹											

No. 1 – nnn?nn
=AAA?AA structure
to start first part of
poem

No. 2 – First major playword between the first
words of each five line, either between the first
two or the next phonemes:
nake sokhe
nakhebo
[kh]**nankhewo**
nateko
nane won

No. 3 –
Playword
between
perj
pewjrj

No. 4 –
AAAB+
A =
m
m
m
s
m

No. 5 –
Global
playword
between the
words of the
second stanza
of the end
second part of
the text =
ABAB
[q = G]

qAjat
napar
gabab
sn ar-Aw

Proposed vocalised text

[rD]=f]⁶⁰

n[a]=k[e] s[o]kh[e]
n[a]kh[e]b[o]
[kh]nankh[e]w[o]
n[a]t[e]k[o]

p[e]rj
p[e]w jrj

[e?]m qA[j]a[t]
[e?]m n[a]p[a]r
[e?]m g[a]b[a]b
sn [a]r-Aw

n[a]n[e] w[o]n[e] kh[o]p[e]r [e?]m kh[a]m[a]k

The quatrain seems to be built on seven feet.

⁵⁰ The *x.t* of *x.t-n-ank* does not fit. Is this to mean that it was not pronounced or that this tripartite word had a compacted pronunciation? In fact *h.t* was most probably pronounced as *h[e]* without the feminine *.t* as for its descendants in Coptic *ϣε*, *ϣη*, *ζε* (Wb 3: 339). This does not solve the unexpected presence of a *h* as start of a sentence where an 'n' like for all other sentences / anaphors is expected but it may reduce it pronunciation to only one problematic syllable. This may be a case where the system may point out to a peculiar and otherwise difficult to detect overall pronunciation of a word, what the system may also be used for.

⁵¹ The « an » of « ank » may have been classified by the scribe as some sort of compact syllable, as otherwise the word does not fit.

⁵² The link between *sxt* and *ϣωϣε* is already established in Wb 4: 229.

⁵³ The link between *qAjt* and *καε* is already established in Wb 5: 6.

⁵⁴ Crum: 356b.

⁵⁵ The link between *npr* and *ναφρι* is already established in TLA DZA 24.990.880.

⁵⁶ The link between *prj* and *περε* is already established in Wb1: 518.

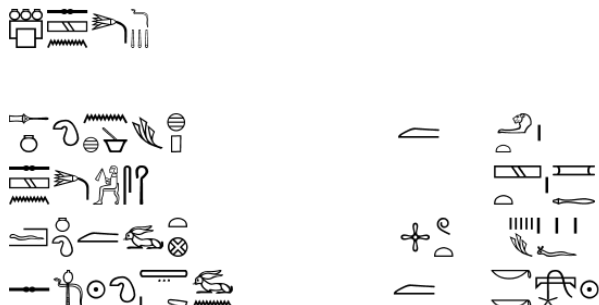
⁵⁷ The link between *jrj* and *ιρι* is already established in Wb 1: 108

⁵⁸ The link between *nn* and *νε* is already established in Wb 1: 308.

⁵⁹ The link between *xpr* and *ϣωπε* is already established in Wb 3: 260.

⁶⁰ *rdj* is not vocalised as here isolated.

Hieroglyphic text⁶¹



Transliteration

[*h**n**k* *s**s**n* *ḏ**d*-*m**d**w*]

*h**r**p*⁶²[=*j*] *n*=*k* *n**ḥ**b* *ḥ**p*(*r*)

*s**s**n* *s**p**s**s* *ḥ**k*3

*p**r*(*j*) *n*=*k* *m* *W**n**w*

*sh**ḏ* [*n*]=*k* *t*3 *wn*[*n*]

m-*ḥ*3*t*

s-*ḥ*3

[*j*]*m**j*.*t*[*w*] *k*3*b*.*w*=*f*⁶³

m *kk*3.*w*

Translation

[Offering of the lotus flower, words to be recited]

I bring to you the lotus which came to existence (born) in the beginning

The noble lotus, ruler of the great lake [canal?]

You come out from *Wnw* [Hermopolis] in the midst of its petals

[and] illuminate the earth from darkness

⁶¹ Source text: TLA DZA 28.787.770. Note that the reference to the text “Dendara [Temple] IX, 173, 12-174” indicated on the slip is erroneous. The correct one is Dendara IX, 171, 12-172, 8. The author is grateful to D. Meeks for this rectification.

⁶² Here again *xrp* is preferred to *mn*. Mathieu in this respect states (14-02-14; page 3): ‘La lecture *h**r**p* semble confirmée par le jeu phonique avec *ḥ**p*(*r*). L’allitération en *h* est patente dans ce vers, comme l’allitération en *s* au vers suivant’.

⁶³ Greek variant with *k* of *g*3*b*.*w* (Wb 5: 154)

Grid analysis [vowels confirmed by Coptic are greened]

C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C
x	[o]	rp	[y]	n	[a]	k	[e]	n	[a]	kh	[e]	b	[o]	kh	[o]	p	[a]	m		H	A	t	[a]			
s	[o]	sh	[y]	n	[a]	sh	[e]	p	[a]	s	[e]	s	[o]	H	[o]	q	A			S	a	-	A			
P	[o]	r(j)	[e]	n	[a]	k	[e]	m	[a]	W	[e]	n	[o]	w			[j]	m	[j.	k	A	b	[a]	w		f
s	[o]	HD	[e]	[n]	[a]	k	[e]	t	A	w	[e]	n	[o]	[nʔ]				m		k	[a]	k	A	w		
ϣ	ϣ	ππ		Ν	λ	κ		Ϣ	λ	ρ	-	π	οτ	ϣ	ϣ	π	ϵ ⁶⁵	Η		ζ	λ	Θ	Η			
ϣ	ϣ	ϣ	ϵ	Ν		ϣ	λ	π	-	ϣ	ι ⁶⁶															
				Ν	λ	κ		ζ	λ											δ	ω	Β	ϵ			
								τ	ο ⁶⁷									Η		κ	λ	κ	ϵ ⁶⁸			

Proposed vocalised text

Kh[o]rp[εʔ]=y n[a]=k n[a]kh[e]b[o]
 Sh[o]sh[e]n[a] sh[e]p[a]s[e]s[o]
 P[o]rj[e] n[a]=k m[a] W[e]n[o]w
 S[o]Hdj n[a]=k ta w[e]n[o]n

kh[o]p[a]
 H[o]qa

m-HAt[a]
 ShaA
 [j]mj.t kAba[.w]=f
 m k[a]kA[.w]

100% correspondence
of 'a' type of vowels.

The reader will recognize the diverse parts or play words noted for the two previous texts studied. Note how in this text in the third column, for each line, the scribe has seemingly condensed double sounds or used bilateral signs to fit the beat of composition and rhythm of recitation. The quatrain seems to be built on ten feet. Note that one could be tempted to deploy the text with the 'm' of 'm[a] W[e]n[o]w as separating agent, this particularly as the third line starts with a 'p' which creates an unexplained hiatus; one would expect a verb starting by x/kh. However the playword between W[e]n[o]w/w[e]n[o]n (3rd/4th lines) first indicates that the spread of the stanzas/quatrain is correct. Some Coptic words here used, like **ϣωβε** 'petal' present some vowels (in red) which do not fit the result of the internal poetry analysis, perhaps for lack of available variants or more probably following some word evolution/shift. The latter is in fact confirmed by the internal analysis which shows all four 'a' type of vowel of column 22 identical, in other word a 100% correspondence [green box], including three aligned semi-vowels directly provided by the transliteration: A+a+A, and one 'a' theorized and verified through Coptic. The playword kaba[.w] / k[a]kA[.w] is obvious (terminal words of lines 3 and 4). Coptic confirms that the 'w' was probably not pronounced and in this case the scribe's four phonemes or two syllables game becomes equally evident – perhaps finalizing the demonstration of the validity of the analytical system here developed:

...HAta
 ...ShaA
 ...kAba
 ...kakA

H	A	t	[a]
Sh	a	-	A
k	A	b	[a]
k	a	k	A

Perfect disyllabic structure
of second part of Dendara poem:

CV.CV = 2 syllables
 CV.XV = 2 syllables
 CV.CV = 2 syllables
 CV.CV = 2 syllables

⁶⁴j is here most likely a 'prothetic yod' type of vowel read in the region of æ.

⁶⁵The link between xpr and ϣωβε is already established in Wb3: 260.

⁶⁶Crum: 582a.

⁶⁷Crum : 396a.

⁶⁸Crum: 101b.

Dictionary of vocalised vocabulary extracted from OMBOS I 110 143, DENDARA IX, 173, 12-174 & OMBOS I 84 100

Word translit.	Latin translit.	Meaning	Source
[a]Sa[w]	ashaw	Plants	OMBOS I 110 143
Ab[a]x	Abakh	Merge (to, v.)	OMBOS I 110 143
AxAx	AkhAkh	Grow (to, v.)	OMBOS I 110 143
S[a]r[e]t[a]	sharet[aʔ]	Nose, Nostril	OMBOS I 110 143
GAb[a]b	gabab	Geb/earth	OMBOS I 84 100
gAb[a] [w] / k gAb[a] [w]	gAbaw/kAbaw	Petals	DENDARA IX, 171, 12-172
gAb[e]b[a].w	gabebaw	Fields	OMBOS I 110 143
HAp[e]y	HApe[y] ⁶⁹	Nile	OMBOS I 110 143
H[o]qa	Hoqa	ruler	DENDARA IX, 171, 12-172
k[a]kA	kakA	Darkness, obscurity	DENDARA IX, 171, 12-172
m-H[a]r	m-Har	In front	OMBOS I 110 143
m-HAt	m-HAt	In front	OMBOS I 110 143
n[a]p[a]r	napar	Grain (Corn)	OMBOS I 84 100
n[a]x[e]b[o]	nakhebo ⁷⁰	Lotus	DENDARA IX, 171, 12-172
n[a]x[e]b[o] [w]	nakhebow	Fresh Field[s]	OMBOS I 84 100
qAy[a]t	qAyat	High lying land	OMBOS I 84 100
ShA	shaA	canal	DENDARA IX, 171, 12-172,
S[e]p[a]s[e]s[o]	shepaseso	Noble	DENDARA IX, 171, 12-172
s[o]HD	soHedj	illuminate	DENDARA IX, 171, 12-172,
s[o]m	som	Herb	OMBOS I 110 143
s[o]S[e]n[a]	shoshena ⁷¹	Lotus	OMBOS I 110 143; DENDARA IX, 171, 12-172,
w[a]b[a]k	wabak	Green (to, v.)	OMBOS I 110 143
w[e]n[o]	weno	Earth	DENDARA IX, 171, 12-172
w[o]n	won	Exist (to, v.)	OMBOS I 84 100
wAD	wAdj	Green	OMBOS I 110 143
x[a]m	kham	Know (to, v.)	OMBOS I 110 143
x[o]n[e]m[a]	khonema	Scent	OMBOS I 110 143
x[o]nt[a]S	khontash	Make glad (v.)	OMBOS I 110 143
x[o]pr	khopr	Exist (to, v.)	OMBOS I 84 100
x[o]rp	khorp	Bring (to, v.)	OMBOS I 110 143

Note how the resituating of the vowels re-organizes Ancient Egyptian words in a different and more meaningful order.

⁶⁹ y is probably silent, hence 'Hape' for 'Nile'.

⁷⁰ "Nakhebo" is not without reminding of *Nelumbo*, water lily, in Latin.

⁷¹ Soshena is not without reminding of hebrew שושנה (*Shoshannah* or šōšānna/shoshānna), from which the name *Suzanne* comes from. In both texts where it occurs.

Notes on the poetic structure of Ombos I 84 100, Ombos I 110 143 and Dendara IX, 171, 12-172

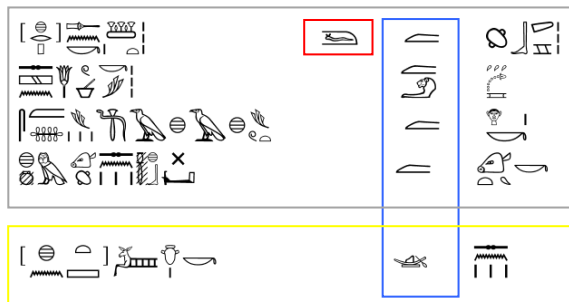
It is impossible on the basis of only three texts to draw definite conclusions or general rules about the compositional system used by the scribe or scribes who devised these poems. It is clear however that a disyllabic rhythm based, as said before, on the alternating of vowels and consonants is at the core of the structure. This seemingly resulting in the construction of each stanza, of each quatrain of the three texts, on respectively nine, seven and ten feet, divided in two parts – one shorter than the other. Structure where, a very important point, the rhythm of poetic sounds, composed of alternating sound units, prevails on the perfection of the correspondence of phonemes. The scribe was first composing a perfect poem, with the most harmonious musical effect possible, thereafter backed as much as possible by a perfect almost mathematical distribution of the phonemes to express divine order, i.e. Maat, as well as its perfection. And not the reverse, i.e. a text where the perfect alternating and vertical concordances of the phonemes, in anaphoric and chiasmic verses, would prevail over the end poetic, or musical, result. This point may explain the very few irregularities or hiatus pinpointed, some which may perhaps be solved the more texts will be vocalized.

Conclusions

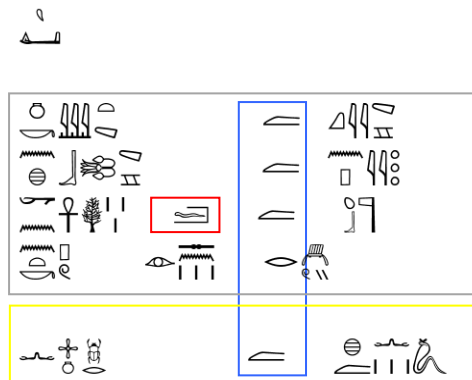
Even if taking in consideration imperfections due either to the author's transliteration, or the scribe's original composition or re-copying, possibly even XIXth century faulty copying of the original bas-relief, the present study confirms the important discovery previously made while studying the Daily Ritual that ancient Egyptians organised certain types of poetic religious texts in an extremely rigid standard structure; this most likely to express divine perfection in precisely the most perfect of manner; this as each poem was to be recited before the divinity itself. Structure revealed in each three texts studied and particularly with the perfect disyllabic structure of the end of the Dendara poem (see page 17).

This structure had, at a global level, at least four easily recognisable characteristics which, until more texts of the same nature will be studied, may provisionally be outlined as follows:

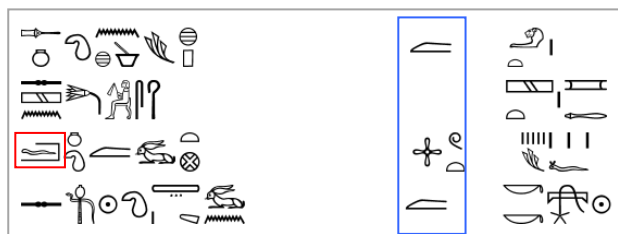
- 1 – The main body of the text is composed over four stanzas constituting a quatrain [in grey box below]
- 2 – Each stanza is composed of two parts, separated by an adverb or a preposition, here almost exclusively '*m*' [in blue box below].
- 3 – A fifth line may appear providing an awaited conclusion [in yellow box]. This line is seemingly absent in the Dendara temple inscription here studied, unless the text is truncated.
- 4 – In one of the stanza a 'floating' verb (here *pr(j)*) appears repeatedly which seems to divide further the text for reasons remaining to be elucidated⁷² [in red box]. The same verb appears in the third Dendara text but this may be a coincidence in view of its position, unless the deployment of the text is otherwise.



OMBOS TEMPLE I 110 143



OMBOS TEMPLE I 84 100



DENDARA TEMPLE IX, 171, 12-172, 8

⁷² In Ombos I 110 143 this 'floating' is on the first line but in Ombos I 84 100 this line is central, not without reminding the central line of the chiasmic structure of chapter 21 and 36 of the Daily Ritual (see Vartavan, forthcoming).

At internal level, the text structure is governed to the minimum by the following various characteristics⁷³:

1 - The text alternates horizontally consonants and vowels in an alternate beat, which can be expressed in a series of C[onsonants]-V[owels] columns. It would seem that the composer(s) wanted to give it a solid dissyllabic rhythm. In some cases when two consonants follow each other a silent *e* seems to have been inserted, which may or may not have been pronounced.

2 – Vowels, of the words chosen by the scribe, need be the same in each vertical column. To do this the scribe could place semi-vowels “3/A”, “*ʕ*/a” or “j/i or y” (but not ‘w’ which is treated as consonant and glide), in the same column of vowels by finding words which had them as start, even middle and sometimes final vowels. **Which is also to say that the first vowel of the first word of the first line is the same as the first vowel of the first word of the second line, and the third, and of the next lines if any. The same is for the second vowel of the first word of the first line, and of the second and third, thereafter of the other lines if any; and ideally subsequently for all words on all lines.** This discovery is of great importance as whenever any of these semi-vowels appears, the nature of the other hidden vowels within the column, may be theorized. The validity of this discovery is verified by the fact that “3/A” or “*ʕ*/a” fall systematically in the vowel columns when letters of the texts are distributed according to this principle. Hence if an “3/A” or an “*ʕ*/a” appears then an invisible “a” type of vowel can be theorized in the same column where there are empty spaces⁷⁴. Hiatuses, i.e. word which could not fit in this tight structural scheme, are very few across the three texts here studied⁷⁵.

3 – The words of the poem were chosen by the scribe not only for their similar vowels but also for their consonants which he tried to align vertically to form vertical series of similar consonantal sounds x-x, k-k, etc.... The difficulty of composing any text in such manner betrays elaborate work and scribal concentration. Play words between the words of each line are thereafter obvious. In this respect anaphoric and chiasmic structures such as respectively ABBA is used, further allowing to verify the validity of the translation (for example *xrp* instead of the often used *mj.n* in the first text studied (Ombos I 110 143) as otherwise ABBA (i.e. *h-s-s-h*) cannot be) and confirm the rigid structuring of the composition. The absence of an ABBA type of chiasmic or other identifiable similar order for the first syllables of a poem, hence showing a hiatus, would probably betray faults in our transliteration and/or translation. To Ancient Egyptian scribes the orderly structure of the verses was fundamental as expressing divine order or perfection, a matter which was not and should not in any circumstance be treated lightly.

The discovery of this unexpected, and to the author’s knowledge previously unseen rigid, almost mathematical, structure of Ancient Egyptian poetic text composition offers an unprecedented opportunity to vocalize at least part of the ancient Egyptian vocabulary according to a systematic methodology which is not part of traditional linguistics but fall within the realm of internal poetry analysis. Imperfections or even faults, either in the structural analysis of the texts and their subsequent vocalisation are at this experimental stage inevitable and of no importance against the revelation of the elaborate systematic employed by Ancient Egyptian scribes to compose their texts, as well as the use which may be made of it to vocalize their language. The more texts will be vocalised the more precise the vocalization will be and the less Coptic will be necessary as a vowel verifying/suggesting agent. This as a corpus of already vocalized Ancient Egyptian words will gradually be constituted and used in the same way, i.e. as mutual verifying agents⁷⁶.

Where vocalisation is also concerned, one must understand that if vowels can be resituated this does not imply that the “exact” vocalisation is known. This not only because we are not sure for example if the resituated “[o]” type of vowel in any word was long or short, although the recurring presence of the long o ‘*ⲱ*’ in column 2 of both the first Ombos text and also that from Dendara strongly suggest that the Ancient Egyptian ‘o’ was equally a long one, hence [ô]⁷⁷. Also because any language has at different times in its history different accentuations on the pronunciation any word (the language may have been more guttural in ancient times then during the Ptolemaic period when Greek had a softening

⁷³ The vocalisation of only three texts cannot at this stage allow to define principles.

⁷⁴ In one case - for *gbb* (end word of line 1) - the scribe has chosen an alternative sign to express the invisible ‘a’, hence ‘*gʕ*’ (Aa2) instead of the usual ‘*gb*’ (G38) as *gʕbb* was clearly meant.

⁷⁵ The latter theorization may then verified by the use of Coptic words known to have been used since pharaonic times and which, unlike is often thought, have often kept intact their original vowels and in the same place. In fact all Coptic words which the author has so far been able to find and which may be linked to their Ancient Egyptian equivalent in either of the three texts have presented at the right place the vowel theorized on the base of the semi-vowels 3/A, *ʕ*/a or j/i or y already present in the text. Interestingly the semi-vowel “w” is systematically treated as a consonant.

⁷⁶ As the author closes his manuscript (09-13), further advances indicate that some of the Demotic vocabulary, in particular fully vocalised foreign loan words, may also be used as second verifying agent. This will be the object of a forthcoming study.

⁷⁷ [Close of manuscript remark (24-02-14): This was subsequently demonstrated by subsequent research and will be discussed in a forthcoming study].

and simplifying influence which is expressed in Coptic). The word may also have hence been written the same in Ramesside and Ptolemaic times, but was by usage or convention pronounced otherwise – French being a particular representative example as many words are written in one way and pronounced in another way, and differently so in history. These subtleties of pronunciation the method does not reveal, although as more texts will be vocalised and more word plays recognised, some hints may be gathered. Where time periods are concerned, it must be taken into consideration that the offering texts presented in this study may have been far more ancient than Ptolemaic. It may be that they were compositions of such perfection that they were re-used across centuries in the same way as we use century old songs and poems from classic masters today. They may hence be hundreds if not thousands of years old and once composed by authors the names of which and personal history have now fallen into oblivion. But whose talent and unexpected if not stupefying compositional rigour now allow us to attempt hearing again a language the sounds of which had not been heard since two millennia⁷⁸. Where the language itself is concerned, the vocalisation of part of the vocabulary will no doubt help linguists better understand the deep nature of Ancient Egyptian and perhaps tie it more easily and more precisely with other groups of existing languages. Since vowels act as supplementary classifying agent for words which so far had identical consonantal skeletons, future new dictionaries of Ancient Egyptian will be otherwise classified. Such new classification will probably further the establishment of linguistic connections with the languages to which Ancient Egyptian is thought to be affiliated. More importantly the system can be used as verification agent for vocalisations made through linguistic arguments and which could not be so far demonstrated as correct for lack of an external and independent verification system. Another key point of this study as many Ancient Egyptian words have in the past been vocalised by scholars and in the author's opinion many correctly. The validity of these reconstituted vocalisations could however not be verified and remained at scientific level pure conjunctures or speculations. Internal poetry analysis may now be used to lift these conjunctures and progressively re-vocalize Ancient Egyptian as spoken by pharaohs and their subjects for over three millennia.

Khôrp = eʔy na=k ashAw	<i>peiʔrj.aʔw</i>	meʔ gAbeba
Sôshena wabak,		meʔ HAte Hape
Sôme wAdj AkhAkh		meʔ-Hare=k
Khônema=sen Abakh		mè-share=k

Khôntash jebak	<i>jeʔma=sa</i> n
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OMBOS TEMPLE I 110 143

[rDj]=f⁷⁹]

na=k sokhe		meʔ qAjat
nakhebo		meʔ napar
[kh]nankhewo	<i>per(jʔ)</i>	meʔ gabab
nateko	<i>pew jr(jʔ)</i>	sn ar-Aw
<i>nay</i> wone	khopert	meʔ khamak

OMBOS TEMPLE I 84 100

Khôrp= eʔy na=k nakhebo	khôpa	meʔ-HAte
Shôshena shepaseso	Hôqa	shaA
Pôʔje na=k ma Wenow	<i>jmj.t</i> kAba=f	
SôHdj na=k ta wenon	meʔ kakA	

DENDARA TEMPLE IX, 171, 12-172, 8

⁷⁸ Although Coptic is a descendant of pharaonic Egyptian, the language endured considerable phonetic changes and supplementary layers of vocabulary from various origins (the main reason why some scholars have long deemed impossible to vocalize Ancient Egyptian using Coptic). This the gradual vocalization of Ancient Egyptian will progressively make apparent. However, much of its vocabulary is issued from pharaonic Egyptian and as has been shown in this study may safely be used for such purpose provided sustained attention and prudence in establishing linguistic correspondences is adopted. In fact one of the understated major conclusions of this research is that the distance between pharaonic Ancient Egyptian and Coptic is seemingly very much less than thought.

⁷⁹ Unvocalized. Phonemes or words in italics are also of uncertain vocalization. *e* indicates suspected silent 'e'. The above is the result of fundamental research experimentation and should in no circumstance be taken as a definite vocalization of the Ancient Egyptian texts studied and/ or of the words here reconstructed. Confirmation of the full and correct vocalization of each word will come through the future cross-vocalization of numerous texts.

[Important note on close of manuscript (21-02-2014). The above article present the state of research reached up to end 2012. Since then the author has made considerable progresses in the vocalisation of Ancient Egyptian, in particular concerning vowels, their more precise identity and diversity (with much to say in this respect) and accentuations; as well as many other aspects, including the vocalisation of the plural which in this article is left in its base pronunciation. A few of these progresses were included or mentioned in this study whereas others are to be necessarily explained in details in forthcoming studies before being used to vocalize ancient Egyptian].



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[Note: As the above method is self-developed, most of the following references concern the field of vocalisation through linguistic argumentations and are listed for information only. The literature available in that area is moreover far more extensive.]

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